

REMARKS¹

In the outstanding Office Action, the Examiner rejected claims 1-15, and 23 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,583,934 to Kramer ("Kramer"). By this amendment, Applicants have amended claims 1 and 23. Claims 1-15 and 23 remain pending in this application.

Regarding the rejection of claims 1-15 and 23 under 35 U.S.C. § 103(a), Applicants respectfully traverse this rejection on the grounds that a *prima facie* case of obviousness has not been established. To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three requirements must "be found in the prior art, and not be based on applicant's disclosure." See MPEP § 2143, 8th Ed. (Rev. 4), October, 2005. At a minimum, the Examiner has failed to show that the references teach or suggest each and every element required by the claims.

For example, Kramer fails to teach or suggest a combination including at least "a single molded piece comprising an integrated first section, second section, third section, and diffraction grating," as recited in amended claim 1.

At page 5 of the Office Action, the Examiner asserts:

[t]he examiner does not give patentable weight to the limitation '**molded**' since the word 'molded' implies that the above demultiplexer [sic] was made through molding process ... the presence of process limitations on product claims. which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. Emphasis in original

Applicants respectfully disagree with the Examiner's assertion. With respect to the "single molded piece comprising an integrated first section, second section, third section, and diffraction grating," as recited in amended claim 1, Applicants respectfully direct the Examiner's attention to MPEP § 2113, which states:

[t]he structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product ... terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" **are capable of constructions as structural limitations**. MPEP § 2113, 8th Ed. (Rev. 4), October, 2005 (emphasis added).

Here, the term "single molded piece" as recited in claim 1 imparts clear structural limitations on the claimed "demultiplexer." That is, claim 1 recites a "demultiplexer comprising: a single molded piece..." Accordingly, if the prior art fails to teach or suggest a "demultiplexer comprising a single molded piece..." as recited in claim 1, the prior art can neither anticipate nor render obvious claim 1.

The Examiner, however, asserts that the MPEP "affirms the examiner's standing in the issue that the above demultiplexer [of Kramer] is entirely integrated as one single unit having a single piece that as stated above includes all contended limitations as claimed." Office Action, page 9 (emphasis in original). Applicants respectfully disagree with the Examiner's assertion, as Kramer fails to teach or suggest at least "a single molded piece," as recited in claim 1 (emphasis added). Here, the term "single molded piece," describes a product comprised of a single piece which can only be made by the process of molding. Furthermore, the term "molded," imparts a distinctive structural characteristic to the final product, such as the terms "welded," "press fitted," and "etched," and should be construed as a structural limitation, as provided for in the above quoted section of the MPEP.

The Examiner acknowledges that Kramer fails to teach or suggest at least this element, stating “Kramer ... does not specifically teach wherein the above single piece a molded single piece.” Office Action, page 4. Moreover, the Examiner does not provide any teaching or suggestion for curing this deficiency of Kramer. Accordingly, Kramer fails to teach or suggest at least “a single molded piece,” as recited in claim 1, and a *prima facie* case of obviousness has not been established.

In addition, Kramer fails to teach or suggest a combination including “the diffraction grating integrally formed on an external surface of the first section of the single molded piece,” as also recited in claim 1. Kramer teaches an optical wavelength selection apparatus, which may be used as a demultiplexer. Kramer, col. 19, lines 28-31. The apparatus 80 (see Figure 5) comprises a plurality of components, including diffraction grating 10, housing 100, and detector array 94. Diffraction grating 10 is produced from photoresist deposited on a substrate. Kramer, col. 7, lines 46-57. Diffraction grating is then incorporated into apparatus 80 and enclosed in housing 100, wherein all elements may be sealed together using epoxy or other similar sealant. Kramer, col. 13, lines 31-35; col. 6, lines 19-22; col. 19, lines 3-9; col. 20, lines 13-20. Because diffraction grating 10 is enclosed in housing 100, Kramer cannot teach or suggest a combination including “the diffraction grating integrally formed on an external surface of the first section of the single molded piece,” as recited in claim 1. Accordingly, a *prima facie* case of obviousness has not been established for this reason also. Accordingly, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 103(a) be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988). Claims 2-15 depend from independent claim 1, and thus require all of the elements of claim 1. Since Kramer fails to teach or suggest each and every element of claim 1, that reference also fails

to teach or suggest each and every element required by the dependent claims. Accordingly, Applicants respectfully request that the rejection of claims 2-15 under 35 U.S.C. § 103(a) be withdrawn.

Claim 23, although of different scope, recites elements similar to those recited in claim 1. For example, claim 23 recites a combination including “a molded single piece,” and “a diffraction means on an external surface of the single piece component.” As discussed above, Kramer fails to teach or suggest at least these features. Accordingly, at least for the reasons given above with respect to claim 1, a *prima facie* case of obviousness has not been established with respect to claim 23. Applicants therefore respectfully request that the Examiner withdraw the rejection of claim 23 under 35 U.S.C. § 103(a).

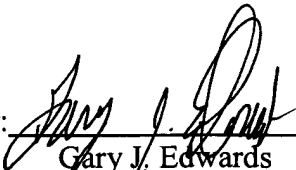
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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